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10/727,277	12/03/2003	Kuriappan P. Alappat	42.P17958	5972

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EXAMINER
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DEWS, BROOKE J

ART UNIT	PAPER NUMBER
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2182

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/727,277

Applicant(s)

ALAPPAT ET AL.

Examiner

Brooke J. Dews

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because black-boxes (100-106, 200, 204, 210, 208, 320, 500-520) should be labeled with appropriate function (i.e. shelf 100, integrated subrack 102, boards 104, and so on) to better illustrate the claimed invention to the public.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "100" and "10" have both been used to designate "shelf", reference characters "104", "204", and "500" have all been used to designate "boards".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Examiner suggest as a title:

**Slot-dependant static network port address assigning method, involves returning unique network address using slot and shelf addresses and assigning unique address as static network address for network port on client board**

### *Claim Objections*

4. Claim 15 is objected to because of the following informalities: Claim 15 depends on claim 15 (itself). For examination purposes, examiner will examine claim 15 as if it depends on claim 10. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 5 and 28 contain the trademark/trade name "PICMG (PCI (peripheral component interface) Industrial Computers Manufacturing Group)". Claim 6 contains the trademark/trade name "CompactPCI". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe 11 and, accordingly, the identification/description is indefinite.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process; machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 24-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 24-28 recite a machine-readable medium to provide instructions wherein the product might not be limited to tangible embodiment. Applicant provides (in paragraph 50 of the specification) evidence that applicant intends the machine-readable medium to provide instructions using “propagated signals such as electrical, optical, acoustical or other form of propagated signals e.g., carrier waves, infrared signals, digital signals, etc”. As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

To expedite a complete examination of the instant application, the claims rejected under 35 USC 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention and to overcome the abstract idea rejection above. Correction/clarification required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 3-6, 18-20, and 24, 25, 27, and 28 are rejected under 35 U.S.C. 102(e) as being taught by Kirk Yates et al. (US Publication 2004/0230866), hereafter Yates.

**Regarding claim 1** Yates discloses a method, comprising:

determining a shelf address and/or a slot address slot [via **Get Address Info and Get Shelf Address Information commands; Paragraph (0006 and 0065-66)**] of a board installed in a card modular platform [via **test assembly 100; Paragraph (0019)**];

and automatically assigning a static network address [via **Set Shelf Address Information command**] for at least one network port on the board based on the shelf address and/or the slot address. [Paragraph (0067)]

**Claim 3** is rejected for the reason set forth hereinabove for claim 1, and further Yates discloses the method wherein the network address is automatically assigned by performing an algorithm [via **configuration**] that generates a unique address in response to providing the shelf and/or slot addresses [via **get address info and get shelf address information commands**] as inputs to the algorithm. [Paragraph (0020 and 0065-67)]

**Claim 4** is rejected for the reason set forth hereinabove for claim 3, and further Yates discloses the method further comprising executing instructions [commands] stored [via **non-volatile memory**] on the board [via field replaceable unit, FRU] to perform the algorithm. [Paragraph (0075)]

**Claim 5** is rejected for the reason set forth hereinabove for claim 1, and further Yates discloses the method wherein the board is a PICMG (PCI (peripheral component interface) Industrial Computers Manufacturing Group)-compliant board [Paragraph (0021)], and the shelf and the slot addresses are respectively obtained by issuing GetAddressInfo [Paragraph (0065)] and

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GetShelfAddressInfo [**Paragraph (0066)**] IPMI (Intelligent Platform Management Interface) commands [**Paragraph 0056**].

**Claim 6** is rejected for the reason set forth hereinabove for claim 1, and further Yates discloses the method wherein the board is made by an original equipment manufacturer (OEM) and configured in accordance with the CompactPCI standard [**Paragraph (0021)**], and the shelf and the slot addresses are obtained by employing OEM-specific IPMI (intelligent Platform Management Interface) commands [**Paragraph (0056 and 0065-66)**].

**Regarding claim 18** Yates discloses a card modular platform board, comprising:

a printed circuit board (PCB)[**via test assembly 100; Paragraph (0019)**] on which a plurality of components are operatively coupled [**Figure 1**] and linked in communication via circuitry on the PCB [**100**], including, a processor [**via control element 110**];

memory [**via 110**];

at least one backplane connector [**backplane interface 102**], configured to couple to a backplane [**206; Figure 2A**] installed in a card modular platform shelf having a plurality of slots [**Figure 4A**];

a network interface [**via intelligent peripheral management interface, IPMI 812; Paragraph (0056-57)**] coupled to a network port;

and at least one of a non-volatile storage device and a mass storage device [**via 110; Paragraph (0019)**];

and machine executable instructions [**commands**] stored in said at least one of a non-volatile storage device and a mass storage device, which when executed by the processor perform operations in response to insertion of the board into a slot [**Paragraph (0001)**], comprising:

determining an address for the shelf and the slot [**via Get Address Info and Get Shelf Address Information commands; Paragraph (0006 and 0065-66)**];

and automatically assigning a static network address [**via Set Shelf Address Information command**] for the network port based on the shelf address and the slot address. [**Paragraph (0067)**]

**Claim 19** is rejected for the reason set forth hereinabove for claim 18, and further Yates discloses the card modular platform board wherein the machine instructions **[commands]** comprise firmware instructions stored in a non-volatile memory **[via field replaceable unit, FRU]**. **[Paragraph (0075)]**

**Claim 20** is rejected for the reason set forth hereinabove for claim 18, and further Yates discloses the card modular platform board wherein execution of the machine instructions **[commands]** automatically assigns the network address by performing an algorithm **[via configuration]** that generates a unique address in response to providing the shelf and slot addresses **[via get address info and get shelf address information commands]** as inputs to the algorithm. **[Paragraph (0020 and 0065-67)]**

**Claim 24 and 25** are rejected on the same basis as claim 18 and 20 for restating the apparatus limitations in method format.

**Claim 27** is rejected for the reason set forth hereinabove for claim 24, and further Yates discloses the machine-readable medium wherein the medium comprises a firmware storage device **[via non-volatile memory]**, and the instructions **[commands]** comprise firmware **[via field replaceable unit, FRU]**. **[Paragraph (0075)]**

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**Claim 28** is rejected for the reason set forth hereinabove for claim 24, and further discloses the machine-readable medium of claim 24, wherein the card modular platform board is a PICMG (PCI Industrial Computers Manufacturing Group)-compliant board [**Paragraph (0021)**], and the shelf and the slot addresses are respectively obtained by issuing GetAddressInfo [**Paragraph (0065)**] and GetShelfAddressInfo [**Paragraph (0066)**] IPMI (Intelligent Platform Management Interface) commands via execution of the instructions [**Paragraph 0056**].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 21, 22, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirk Yates et al. (US Publication 2004/0230866), hereafter Yates, further in view of Steven M. French (US Publication 2002/0073249), hereafter French.

**Claim 21** is rejected for the reason set forth hereinabove for claim 18, and further Yates discloses the card modular platform board further comprising data stored in said at-least one of a non-volatile storage device and a mass storage device comprising a lookup table [**via field replaceable unit records/ address table; Paragraph (0059 and 0064)**] containing a unique network address for respective shelf address and slot address combinations,

Yates does not explicitly disclose wherein execution of the machine obtains the static network address by performing a query on a lookup table using the shelf and slot addresses that are determined as inputs.

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French discloses wherein execution of the machine obtains the static network address by performing a query on a lookup table [via **DHCP log 454**] using the shelf and slot addresses that are determined as inputs [via **MAC address associated**]. [**Paragraph (0046, 0049, and 0050)**]

French and Yates are analogous art because they are in the same field of endeavor involving network computer configuration and assigning characteristics to a system.

It would have been obvious to one having ordinary skill in the art at the time of invention to incorporate French's automatic address associating methods with Yate's test system. The motivation behind such combination being to overcome manually entering number by number the address of each target machine that requires OS software to be distributed to it. [**Paragraph 0009 of French**]

**Regarding claim 22** Yates discloses a card modular platform board **[100]**, comprising:

a printed circuit board (PCB) [via **test assembly 100; Paragraph (0019)**] on which a plurality of components are operatively coupled and linked [**Figure 1**] in communication via circuitry on the PCB **[100]**, including, a processor [via **control element 110**];

memory [via **110**];

at least one backplane connector [**backplane interface 102**], configured to couple to a backplane [**206; Figure 2A**] installed in a card modular platform shelf having a plurality of slots [**Figure 4A**];

a network interface [via **intelligent peripheral management interface, IPMI 812; Paragraph (0056-57)**] coupled to a network port;

and at least one of a non-volatile storage device and a mass storage device [via **110; Paragraph (0019)**];

and machine executable instructions [**commands**] stored in said at least one of a non-volatile storage device and a mass storage device, which when executed by the processor perform operations in response to insertion of the board into a slot [**Paragraph (0001)**], comprising:

determining an address for the shelf and the slot [via **Get Address Info and Get Shelf Address Information commands; Paragraph (0006 and 0065-66)**];

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Yates does not explicitly disclose initializing the network interface; performing client-side operations in a DHCP (Dynamic Host Configuration Protocol) message exchange to obtain a temporary IP (Internet Protocol) address from a DHCP server; sending the shelf and slot addresses to a boot server; receiving a bootable image along with an IP address from the boot server; booting the bootable image, wherein the IP address that was received from the boot server is assigned by the bootable image as a static IP address for the network port.

French discloses initializing the network interface **[via PCI bus; Figure 2]. [Paragraph (0030)]**

performing client-side **[target]** operations in a DHCP (Dynamic Host Configuration Protocol) message exchange to obtain a temporary IP (Internet Protocol) address from a DHCP server; **[Paragraph (0007-0008)]**

sending the shelf and slot addresses to a boot server; receiving a bootable image along with an IP address from the boot server **[via preboot execution environment, PXE 104/105];**

booting the bootable image **[operating system images]**, wherein the IP address that was received from the boot server is assigned by the bootable image as a static IP address for the network port. **[Paragraph (0023)]**

French and Yates are analogous art because they are in the same field of endeavor involving network computer configuration and assigning characteristics to a system.

It would have been obvious to one having ordinary skill in the art at the time of invention to incorporate French's automatic address associating methods with Yate's test system. The motivation behind such combination being to overcome manually entering number by number the address of each target machine that requires OS software to be distributed to it. **[Paragraph 0009 of French]**

**Claim 26** is rejected for the reason set forth hereinabove for claim 24, and further discloses the machine-readable medium further including data comprising a lookup table **[via field replaceable unit records/ address table; Paragraph (0059 and 0064)]** containing a unique network address for respective shelf address and slot address combinations,

Yates does not explicitly disclose wherein execution of the instructions obtains the static network address by performing a query on a lookup table using the shelf and slot addresses that are determined as inputs.

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French discloses wherein execution of the instructions obtains the static network address by performing a query on a lookup table [via DHCP log 454] using the shelf and slot addresses that are determined as inputs [via MAC address associated]. [Paragraph (0046, 0049, and 0050)]

French and Yates are analogous art because they are in the same field of endeavor involving network computer configuration and assigning characteristics to a system.

It would have been obvious to one having ordinary skill in the art at the time of invention to incorporate French's automatic address associating methods with Yate's test system. The motivation behind such combination being to overcome manually entering number by number the address of each target machine that requires OS software to be distributed to it. [Paragraph 0009 of French]

9. Claims 2, 7, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirk Yates et al. (US Publication 2004/0230866), hereafter Yates as applied to claim 1 above, and further in view of Bruce S. Harrison et al. (US Publication 2004/0177133), hereafter Harrison.

Claim 2 is rejected for the reason set forth hereinabove claim 1, and further Harrison discloses the method wherein the static network address comprises an Internet Protocol (IP) address. [Paragraph 00035]

Claim 7 is rejected for the reason set forth hereinabove where Yates discloses claim 1, however Yates does not explicitly disclose the method wherein the network address is automatically assigned by performing a query on a lookup table containing a unique network address for each shelf address and slot address combination to obtain the static network address.

Harrison discloses the method wherein the network address [IP address] is automatically assigned by performing a query on a lookup table [via database] containing a unique network address [via MAC address] for each shelf address and slot address combination [via end device] to obtain the static network address. [Paragraph (0171)]

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Harrison and Yates are analogous art because they are in the same field of endeavor involving network computer configuration and assigning characteristics to a system.

It would have been obvious to one having ordinary skill in the art at the time of invention to incorporate Harrison's intelligent configuration methods with Yate's test system. The motivation behind such combination being for easily adjusting to new business models or service delivery and to have more control of how the IP address can be assigned. **[Paragraph (0026-0027) of Harrison]**

**Claim 9** is rejected for the reason set forth hereinabove for claim 7, and further Yates discloses the method further comprising storing the lookup table on the board. **[Paragraph (0059)]**

10. Claims 10-13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richard C. Fassold et al. (US Publication 2003/0088650) in view of Kirk Yates et al. (US Publication 2004/0230866), hereafter Yates.

**Regarding claim 10** discloses a method comprising:

obtaining a temporary IP (Internet Protocol) address **[relative to the duration through the lease file]** from a DHCP (Dynamic Host Configuration Protocol) server; **[Paragraph (0045)]**

sending the shelf and slot addresses to a boot server; receiving a bootable image along with an IP address from the boot server **[via the ghost system]; [Paragraph (0005)]**

executing the bootable image **[booting following transmission]; [Paragraph (0005)]**

and setting a static IP address for the board **[client]** in accordance with the IP address that was received from the boot server.

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Fassold does not explicitly disclose a network port on a board installed in a card module platform, and determining a shelf address and a slot address of the board installed in the card module platform;

Yates discloses a network port on a board installed in a card module platform **[Figure 1]**,

determining a shelf address and a slot address of the board installed in the card module platform **[via Get Address Info and Get Shelf Address Information commands] ; [Paragraph (0006 and 0065-66)]**

Yates and Fassold are analogous art because they are in the same field of endeavor involving network computer configuration and assigning characteristics to a system.

It would have been obvious to one having ordinary skill in the art at the time of invention to incorporate Yate's test system with Fassold's configuration methods. The motivation behind such combination being to easily insert an additional server blade into a system enclosure and have the blade automatically power up and be recognized by the local system management console. **[Paragraph (0001) of Yates]**

**Claim 11** is rejected for the reason set forth hereinabove for claim 10, and further Fassold discloses the method wherein the boot server comprises a PXE (pre-boot execution environment) server **[via Intel eepro 100+NIC]. [Paragraph (0029 and 0039)]**

**Claim 12** is rejected for the reason set forth hereinabove for claim 10, and further Fassold discloses the method further comprising:

executing firmware on the board to initialize a network interface; **[Paragraph (0045-0046)]** and performing a DHCP message exchange via the network interface to obtain the temporary address **[relative to the duration through the lease file]. [Paragraph (0045)]**

**Claim 13** is rejected for the reason set forth hereinabove for claim 10, and further Fassold discloses the method further comprising returning an IP address for the boot server in addition to the temporary IP address. **[Paragraph (0028-0030)]**

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**Claim 16** is rejected for the reason set forth hereinabove for claim 10, and further Fassold discloses the method wherein data exchanged [transfer] between the board [via client] and the boot server is sent via the Trivial File Transfer Protocol (TFTP). [Paragraph (0028 and 0033)]

**Claim 17** is rejected for the reason set forth hereinabove for claim 10, and further Fassold discloses the method further comprising co-locating the DHCP server and the boot server on the same machine. [Paragraph (0030)]

#### ***Allowable Subject Matter***

Claim 8, 14, 15, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sharma et al. (US Publication 207/0022184); John H. Lohn III (US Statutory Invention Registration H0001940 H); Yao et al. (US Publication 20030084219); Simionescu et al. (US Publication 200402555000);

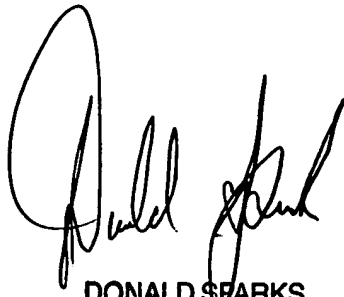
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brooke J. Dews whose telephone number is 571-270-1013. The examiner can normally be reached on M-Th 7:30-5:00, alternate F 7:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B/O  
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DONALD SPARKS  
SUPERVISORY PATENT EXAMINER